

***Nikon***  
**Multi-Control Back**

**MF-21**

INSTRUCTION MANUAL

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## FOREWORD

Thank you for purchasing the Nikon Multi-Control Back MF-21.

Although the MF-21 is easy to use, for best results be sure to read this instruction manual thoroughly before you begin.

The Nikon Multi-Control Back MF-21 is exclusively designed to work with the Nikon F-801/N8008\* and F-801s/N8008s\* cameras. It offers the following functions:

### (1) Data Imprint Function

The MF-21 lets you select and imprint any of the following:

- Year/Month/Day
- Month/Day/Year
- Day/Month/Year
- Day/Hour/Minute
- Frame count
- Sequence number
- Desired fixed number
- Camera shutter speed and aperture

### (2) Auto Exposure Bracketing

Lets you shoot up to 19 continuous frames, each with a different exposure.

### (3) Interval Timer Function

Lets you take a specified number of shots at specified intervals for a specified number of shootings.

### (4) Freeze Focus (Focus Priority) Function

The camera's shutter is released -- automatically -- when the subject enters a preset focus position.

### (5) Long Time Exposure Function

By setting the exposure duration in hours/minutes/seconds, you can set Long Time Exposures of up to 99 hours, 59 minutes and 59 seconds\*\*.

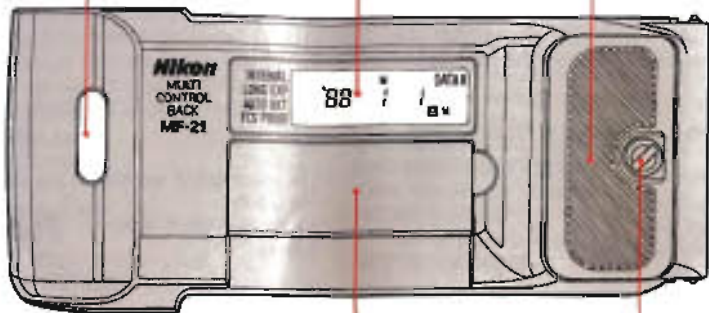
\*The Nikon N8008 and N8008s are sold exclusively in the U.S.A.

\*\*Exposure duration depends on life of main camera battery.

# NOMENCLATURE

LCD panel

Film cartridge window



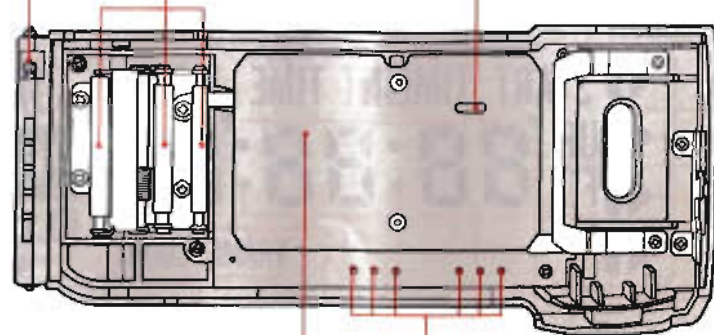
Battery chamber lid

Battery chamber lid  
SCREW

Control panel cover

Film pressure rollers

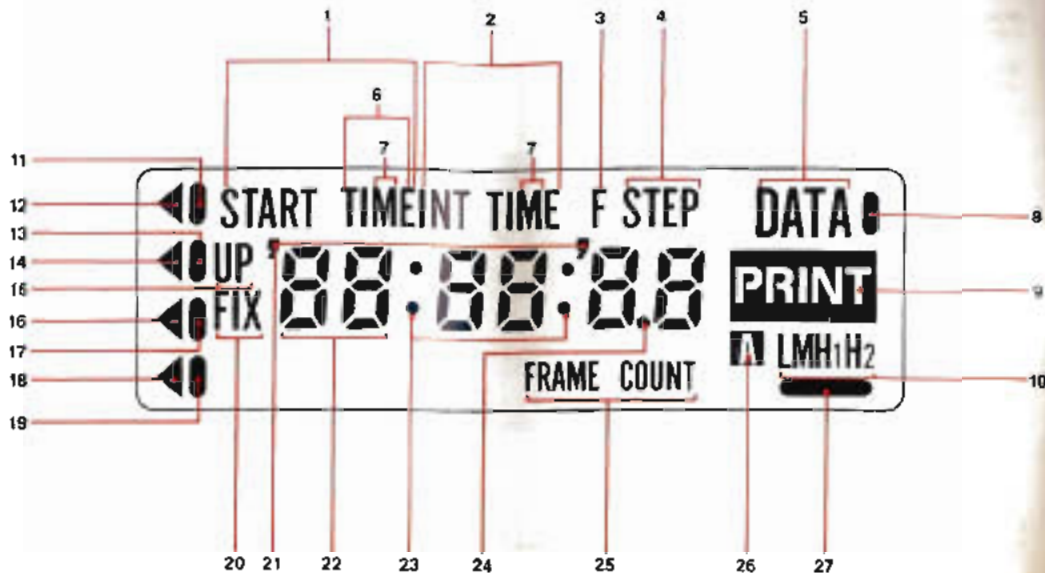
Hinge release



Imprint window

Film pressure plate

Signal contact pins



1. Start Time indicator (for Interval Timer operation)
2. Time indicator for Interval Timer
3. Aperture indicator
4. Exposure compensation indicator (for Auto Exposure Bracketing)
5. Data Imprint indicator
6. Shutter speed indicator
7. Month indicator
8. Data Imprint function indicator
9. Data Imprint set indicator
10. Imprint level indicators
11. Interval Timer function indicator
12. Interval Timer set indicator
13. Long Time Exposure function indicator
14. Long Time Exposure set indicator
15. Sequence number indicator
16. Auto Exposure Bracketing set indicator
17. Auto Exposure Bracketing function indicator
18. Focus Priority set indicator (for Freeze Focus)
19. Focus Priority function indicator (for Freeze Focus)
20. Fixed number indicator
21. Year indicator
22. Display numerals
23. Time indicator colors

24. Decimal point
25. Frame count indicator
26. Imprint level auto adjust indicator
27. Imprint level adjust indicator

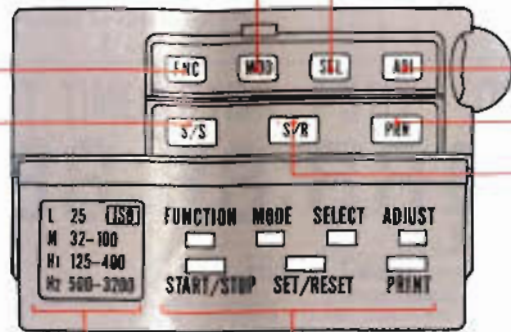
\* Not all displays appear at same time

MODE button

FUNCTION button

START/STOP button

Imprint exposure table



SELECT button

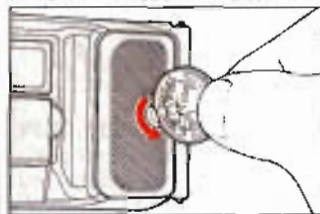
ADJUST button

PRINT button

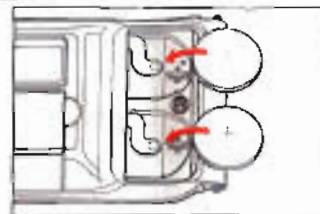
SET/RESET button

Control panel reference table

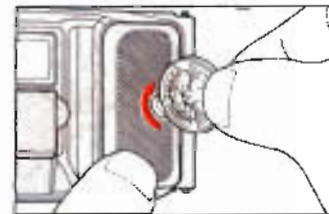
## INSTALLING BATTERIES



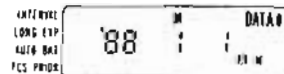
1. Open battery chamber.



2. Insert two 3V CR-2025-type lithium batteries with + signs facing up.



3. Close battery chamber.



4. Check LCD.

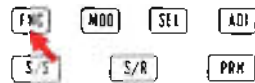
If batteries are properly installed, LCD shows the numbers and letters illustrated above.  
If this display does not appear, replace batteries.

- If another display is shown, push FNC, SEL and ADJ buttons at the same time so the LCD shows the numbers and letters as illustrated.

**2. Attach the MF-21.**

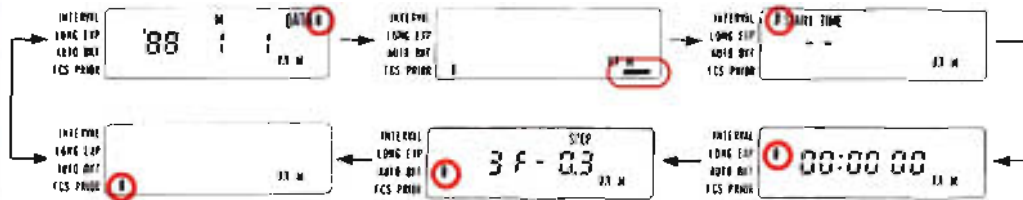
A close-up photograph of the Hitachi MUD1 control back panel. The panel is white with a digital display showing '88' and 'OFF'. Below the display are three buttons labeled 'ON', 'OFF', and 'TEST'. A red arrow points to the 'OFF' button.

Open the control panel.



### FNC (FUNCTION) Button

Used to select MF-21 functions. Choose from Data Imprint, Imprint Level Adjust, Interval Timer, Long Time Exposure, Auto Exposure Bracketing or Freeze Focus.

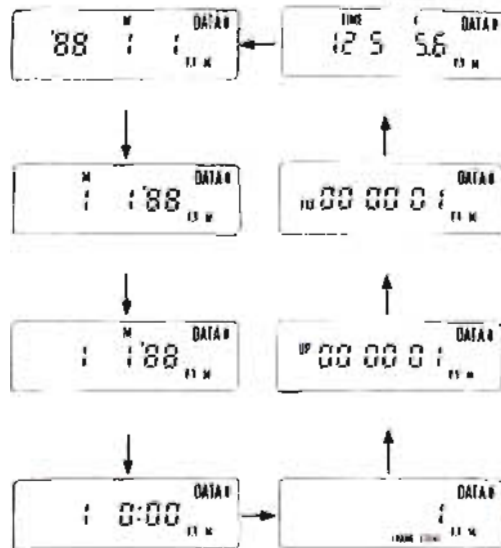




### MOD (MODE) Button

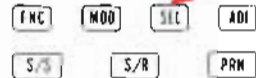
When Data Imprint function is selected (when Data Imprint function indicator is displayed), pushing MOD button alternates display between the following Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or Shutter Speed/Aperture.

**Note:** Imprinted data can only be changed when Data Imprint function indicator is shown on LCD



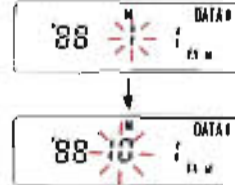
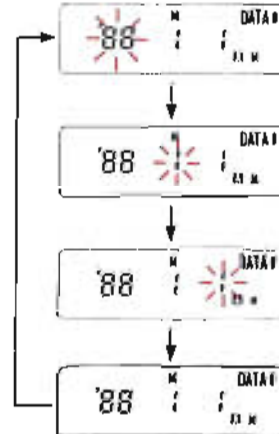
When Interval Timer function is selected (when Interval Timer function indicator is displayed), pushing MOD button alternates display between the following Interval Timer settings: Start Time (Day/Hour/Minute), Interval Time (Hour/Minute/Second), frames per shooting and number of shootings, or Imprint Data

When Long Time Exposure function is selected (when Long Time Exposure function indicator is displayed), pushing MOD button alternates display between exposure duration and imprint data



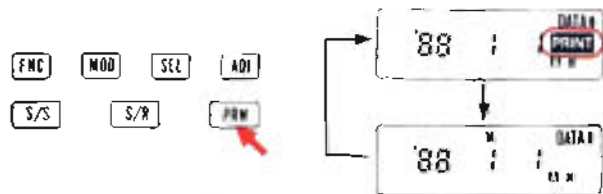
### SEL (SELECT) Button

This button lets you select the numerical indicators you want to change. When you push the SEL button, *edit mode* is activated and the numeral indicator blinks to indicate the selected indicator can be adjusted. You can adjust any of the following data: (1) Year/Month/Day (2) Month/Day/Year (3) Day/Month/Year (4) Day/Hour/Minute (5) Sequence Number (6) Fixed Number (7) Start Time, Interval Time, frames per shooting and number of shootings for Interval Timer function (8) Exposure duration for Long Time Exposure function, (9) Number of frames and exposure compensation degree for Auto Exposure Bracketing (10) Imprint level



### ADJ (ADJUST) Button

Push to change numerals when in edit mode, numbers increase sequentially (except for Auto Exposure Bracketing function) with each push. To advance numbers rapidly, hold button in



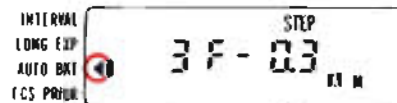
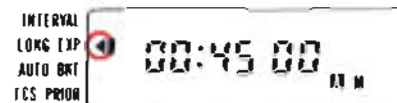
### PRN (PRINT) Button

When Data Imprint function is selected, push PRN button to imprint data on your picture. Data Imprint set indicator (PRINT) means displayed data will be imprinted. To cancel Data Imprint, push button again so PRINT turns off.



### S/R (SET/RESET) Button

Push to set/reset Interval Timer, Long Time Exposure, Auto Exposure Bracketing or Freeze Focus function.



### S/S (START/STOP) Button

Push to start/stop Interval Timer or Long Time Exposure operation. Also used to cancel Auto Exposure Bracketing.

## SETTING IMPRINTED DATA

Before setting data to be imprinted, make sure LCD shows the desired Imprint Data — Year/Month/Day Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or Shutter Speed/Aperture. If it does not, push FNC button to access Imprint Data function display.

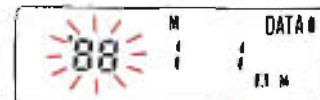
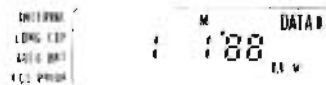
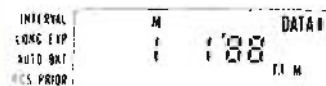
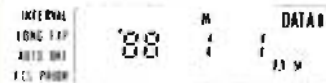
### To Set Date and Time

For practice, adjust date, as in this example — 14 45, October 5, 1988.



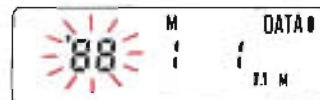
1. Display should show Year/Month/Day, Month/Day/Year or Day/Month/Year, as desired.

If it does not, push MOD button to change display. For practice select Year/Month/Day display.



2. Set the year.

Push SEL button so the numerical indication for year starts blinking and edit mode for year is activated.



As 88 is initially displayed, you don't have to adjust the numerical indication for year in this example. To set the year to 89 or higher, push ADJ button until the desired number appears.



FNC MOD **SEL** ADJ

S/S S/R PRN

### 3. Set the month.

Push SEL button again so the numerical indication for month begins to blink.



FNC MOD SEL **ADJ**

S/S S/R PRN

Push ADJ button until 10 (for October) appears.



FNC MOD **SEL** ADJ

S/S S/R PRN

### 4. Set the day.

Push SEL button so numerical indicator for day starts blinking.



FNC MOD SEL **ADJ**

S/S S/R PRN

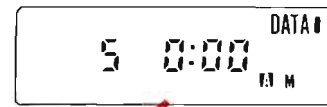
Push ADJ button until 5 appears.



FNC MOD **SEL** ADJ

S/S S/R PRN

5. Push SEL button once more to stop numerical indicator from blinking.



FNC **MOD** SEL ADJ

S/S S/R PRN

6. Push MOD button to change the display to Day/Hour/Minute.

When display shows Year/ Month/Day, push MOD button three times; with Month/Day/ Year display, push twice; with Day/Month/Year, push once.



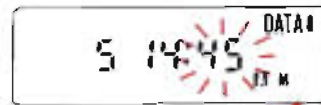
**7. Set the hour.**  
Push SEL button so numerical indicator for day starts blinking. In this example, day is already set, so push SEL button again to activate edit mode for hour.



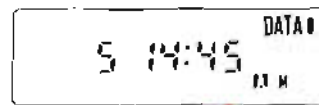
Push the ADJ button until 14 appears



**8. Set the minute.**  
Push SEL button so the numerical indicator for minute starts blinking.

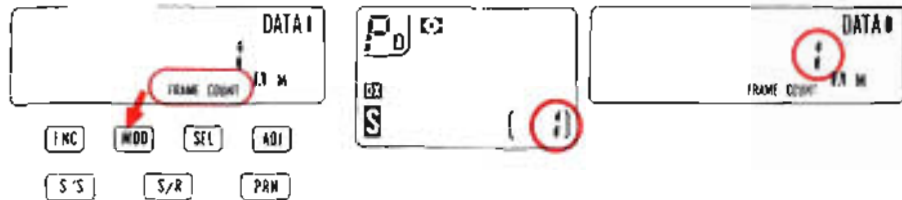


Push ADJ button until 45 appears



**9. Push SEL button again to complete time setting.**

**To set time to precise second:**  
The MF 21's built-in clock runs constantly until batteries are exhausted, even while you set the time. When setting time, set minute indicator one minute behind the minute the clock will reach next. Then, when the second hand reaches 12, push ADJ button to advance minute indicator the extra minute. Setting minute to 00 does not advance hour. For example, if you want to set time to 19:00 precisely, first set hour to 19 (not 18) then set minute to 00 in the manner described above.



### Frame Count

Push MOD button several times until Frame Count is displayed. You can imprint actual film frame number indicated on the camera's frame counter (same as Frame Count display). As you release shutter, number in the Frame Count display increases by one.

When no film is loaded in camera, the LCD shows E.

- Frame count number will not be correctly imprinted with the camera's film advance mode at CH. At temperatures of 5°C (41°F) or colder and with the film advance mode at CL, the Frame Count number may be improperly imprinted.



### To Set Sequence Number

Push and continue pushing MOD button several times until LCD shows Sequence Number ('UP'). With this display, you can imprint any desired number and have it increase by one each time you release the shutter.

Push SEL button once to access the two left hand numerals, twice to access the middle numerals, and three times to access the right hand numerals. To change the numerals, push ADJ button until desired number appears.

- Sequence number will not increase if film is not loaded in the camera and film has not advanced to frame 1.
- Sequence number cannot be reset when the MF-21 back is open.
- Sequence number will not be correctly imprinted with camera's film advance mode at CH. At temperatures of 5°C (41°F) or colder and with the film advance mode at CL, the Sequence number may be improperly imprinted.

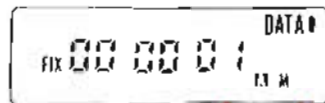


FNC MOD SEL ADJ

S/S S/R PRM

### To Set Fixed Number

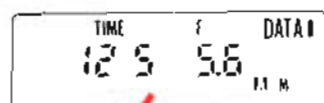
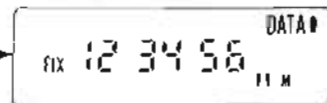
Push MOD button several times until LCD shows Fixed Number display. With this display showing, you can imprint any desired fixed number from 000000 to 999999.



FNC MOD SEL ADJ

S/S S/R PRM

Push SEL button once to access the two left-hand numerals, twice to access the two middle numerals and three times for the two right-hand numerals. To change numerals, push ADJ button until the desired number appears.

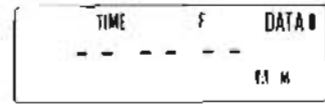
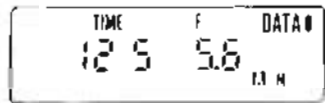
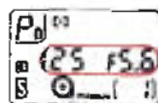


FNC MOD SEL ADJ

S/S S/R PRM

### Shutter Speed/Aperture Mode

Push MOD button several times until the LCD shows shutter speed/aperture display. With this display showing, you can imprint the shutter speed and aperture set on the camera body.



When the camera's exposure meter is on, the shutter speed and aperture set on the F-801/N8008 or F-801s/N8008s body is shown in the MF-21's LCD. One second after the camera's exposure meter turns off, the display shows -- -- --. To activate the display, turn on the camera's exposure meter again.

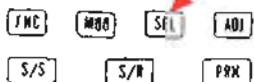
Incorrect imprinting may occur in the following cases:

- 1) Shutter is fully released when camera's exposure meter is off
- 2) Either exposure value and/or brightness of the subject is changing
- 3) When performing continuous shooting with shutter speed set at one second or slower
- 4) When performing Auto Exposure Bracketing in continuous shooting.

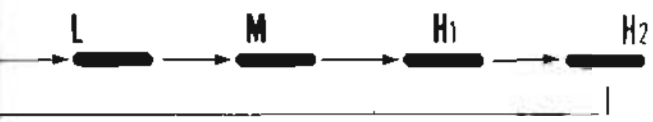
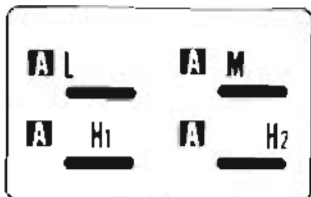
# IMPRINT LEVEL ADJUSTMENT



1. Push FNC button so display shows Imprint Level adjust indicator.



2. Push SEL button several times until imprint level auto adjust indicator (A) appears. Depending on film in use, one of imprint exposure level indicators—L, M, H1 or H2—also appears. For reference, imprint exposure level corresponding to film speed is listed inside MF-21 control panel cover.



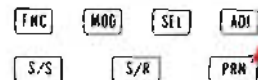
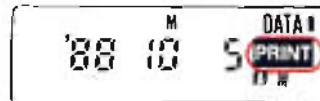
|    |          |     |
|----|----------|-----|
| L  | 25       | ISO |
| M  | 32-100   |     |
| H1 | 125-400  |     |
| H2 | 500-3200 |     |

When using special film or techniques to increase or decrease image density, you can manually adjust imprint exposure. Push SEL button several times until desired setting appears. For a darker imprint, select a higher level letter than the ISO speed on the list. For a lighter imprint, select a lower level. When imprint exposure is manually adjusted, make test shots.

- With imprint level adjust indicator showing, you cannot imprint data. Select desired display using FNC and MOD buttons.
- Imprint level auto adjust indicator and/or imprint level indicator always appear when another function is selected.

## DATA IMPRINTING

Data that can be imprinted are Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or shutter speed/aperture.

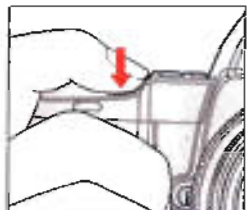


1. Confirm Data Imprint function indicator in the LCD. If it is not shown, push FNC button until it appears.



2. Push MOD button to choose data you want to imprint — Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or shutter speed/aperture.





3. Depress F-801/N8008's or F-801s/N8008s's shutter release button to take picture and imprint data

'88 10 5 DATA 0  
PRINT  
13 M



'88 10 5

Data is imprinted in lower right-hand corner of the picture.

Year/Month/Day

'88 10 5 DATA 0  
PRINT  
13 M

'88 10 5

Month/Day/Year

10 5 '88 DATA 0  
PRINT  
13 M

10 5 '88

Day/Month/Year

5 10 '88 DATA 0  
PRINT  
13 M

5 10 '88

Day/Hour/Minute

5 14:45 DATA 0  
PRINT  
13 M

5 14:45

Frame Count

DATA 0  
PRINT  
13 M

1

Sequence Number

UP 00 01 45 DATA 0  
PRINT  
13 M

00 01 45

Fixed Number

12 34 56 DATA 0  
PRINT  
13 M

12 34 56

Shutter speed/aperture

TIME 12 5 5.6 DATA 0  
PRINT  
13 M

12 5 5.6

- Imprint data may be difficult to read against the following backgrounds.
  - White or bright colors
  - Reddish colors
  - Finely detailed subjects, such as grass or leaves

## INTERVAL TIMER FUNCTION

The Interval Timer function lets you take a specified number of shots at specified intervals for a selected number of shootings.

The maximum interval that can be set between shootings is 99 hours 59 minutes and 59 seconds, and up to 99 exposures can be taken at one shooting. (But because the limit of most film rolls is 36 frames, the film will have to be changed before you can complete the shooting.) The maximum number of shooting intervals at one setting is 99. Data imprinting is possible during the Interval Timer operation.

For practice, set the Interval Timer function to take two shots every 1 hour 15 minutes and 47 seconds, for 18 shootings.

1. Confirm display shows Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or shutter speed/aperture.

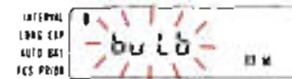
To imprint data during Interval Timer operation, confirm desired display, then push PRN button so the Data Imprint set indicator appears.

You cannot set or change imprint data while Interval Timer function is selected.

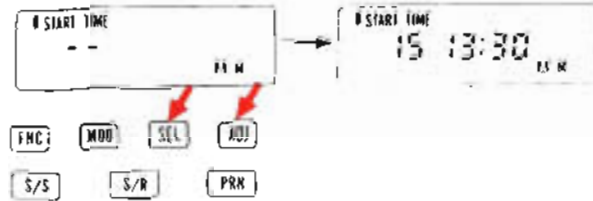


2. Push FNC button so LCD shows Interval Timer indicator.

With Interval Timer function indicator, START TIME appears



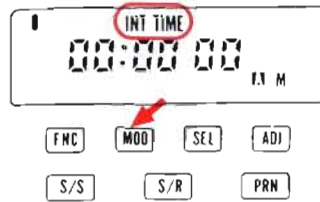
- With camera shutter speed set at 'bulb,' blinking 'bulb' warning appears in the LCD



3. Set start time.

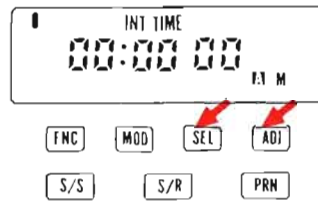
For practice, set start time to 15th at 13:30. Using SEL and ADJ buttons, set display to 15 13:30 using same method described for setting date and time (pages 18 to 23)

- To start the first shooting immediately after setting Interval Timer, adjust the left (date) indication to -- (follows '31')

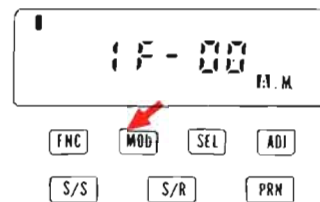
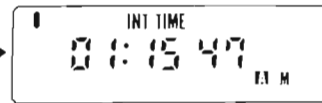


#### 4. Set interval time.

Push MOD button so 'INT TIME' appears.

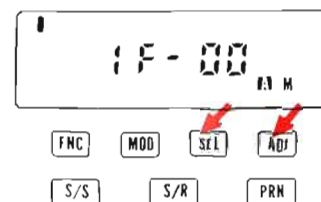


Using SEL and ADJ buttons, set interval time to 01:15 47.

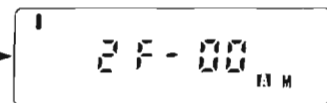


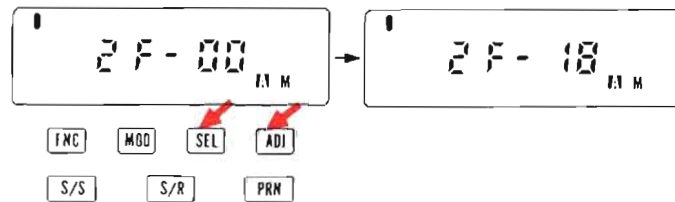
#### 5. Set number of shots per shooting and number of shootings.

Push MOD button to change the display to 1F-00. Numerical indicator on the left (with F) indicates number of frames per shooting, right numerical indicator shows number of shootings.

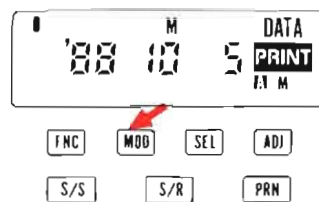


Push SEL button so the left indication begins to blink, then push ADJ button until 2 appears.

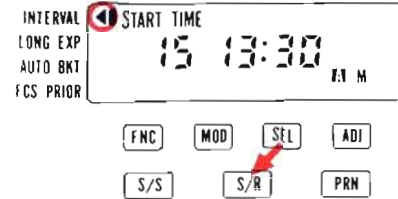




Next, push SEL button so right numerals begin to blink, then push ADJ button until 18 appears.



- To confirm imprinted data, push MOD button to change display.



## 6. Push S/R button to complete Interval Timer setting.

Interval Timer set indicator appears.

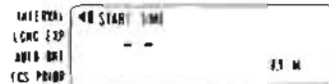
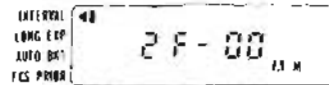
To change or cancel imprint data, push FNC button four times so Data Imprint function indicator appears. After adjusting, push FNC button twice to activate Interval Timer function again. (This time, you do not have to set start time, interval time, number of frames or number of shootings.)



### 7. Push S/S button to start Interval Timer operation.

Interval Timer set indicator blinks to show Interval Timer is active

First shooting will be taken at the set time and date, or immediately if you set the date to - -.



When all shootings set have been taken, Interval Timer operation stops. The Interval Timer set indicator stops blinking, numerals for number of shooting shows 00, and numerical indicator for start time resets to - -.



### 8. Push S/R button to cancel Interval Timer set.

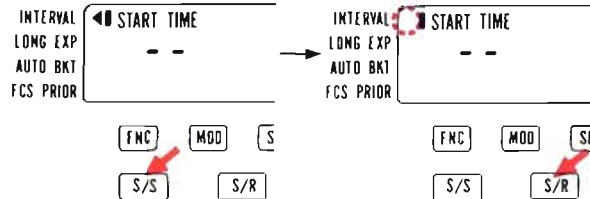
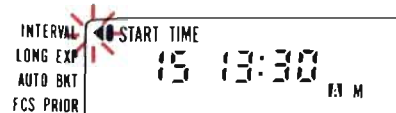
Interval Timer set indicator disappears





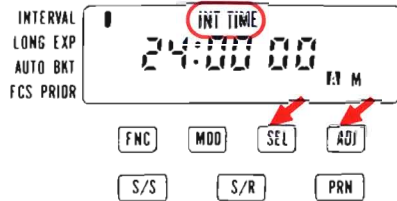
### To stop Interval Timer operation

Push S/S button. Interval Timer set indicator stops blinking and start time resets to --.



To cancel Interval Timer set during Interval Timer operation, push S/S button, then push S/R button.

- With frames per shooting set at 00, Interval Timer operation cannot begin.  
With interval time set at 00:00 00, Interval Timer will not function.  
Setting interval time to 00:00 00 cancels Interval Timer set.
- With camera's shutter speed at 'bulb,' you cannot set Interval Timer function. Setting camera to 'bulb' cancels Interval Timer settings.
- If film reaches end of roll during shooting, Interval Timer operation stops automatically and start time resets to --. To avoid this, replace film cartridge during intervals.
- During Interval Timer operation, camera's meter turns on only when activated by the MF-21 and turns off 2 seconds after each shooting to save battery power.
- To ensure correct measurement by camera's exposure meter, use Eyepiece Cover DK-8 to prevent light from entering the viewfinder.
- During intervals you can take additional pictures in the ordinary way by depressing the shutter release button.
- Number of shootings indicated decreases by one with each shooting.
- When using a Nikon Speedlight with standby switch, speedlight charging begins one minute before the shooting time set in Interval Timer operation. If interval time is shorter than one minute, speedlight's standby switch does not function well.
- With camera body set for single servo autofocus in Interval Timer operation, shutter will not be released if focusing takes more than 10 seconds.
- When camera is set at autofocus mode with intervals of *more than three seconds*, and shooting time requires less than one second, the lens autofocus function will start two seconds before each shooting.
- If total of exposure and film advance time for one shooting extends beyond interval time, camera will skip one shooting and move on to the next shooting time.



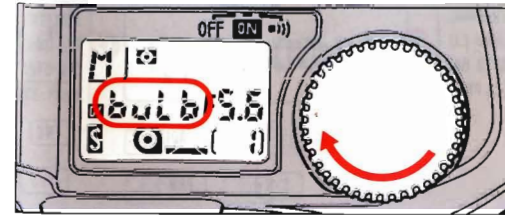
#### Using MF-21 as a timer

You can shoot at a given time every day by setting start time at your desired time and setting the interval time to 24:00 00.

## LONG TIME EXPOSURE FUNCTION

1. Make sure display shows Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or shutter speed/aperture.

To imprint data during Long Time Exposure operation, select desired display, then push PRN button so Data Imprint function indicator appears. You cannot set or change imprint data while Long Time Exposure function is selected.

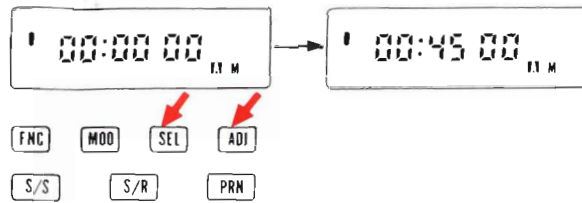


2. Set shutter speed on the camera to 'bulb' in manual exposure mode.



### 3. Push FNC button so Long Time Exposure function indicator appears.

Numerical indicator for exposure duration appears in LCD.

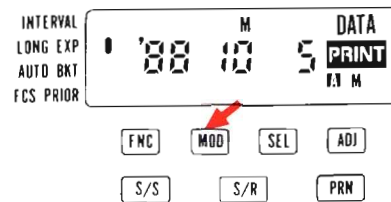


### 4. Set exposure duration.

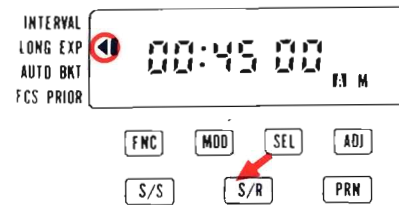
With SEL and ADJ buttons, set desired exposure duration, using same method for setting date and time (pages 18 to 23).

Exposures can be performed for up to 99 hours 59 minutes 59 seconds.

In this example, 00:45 00 is set. Note that exposure duration depends on life of main camera battery.

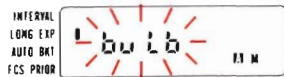


- To confirm imprinted data, push MOD button to change display. To change imprint data, push FNC button four times to select Data Imprint function. After adjusting, push FNC button three times to activate Long Time Exposure function again. (This time, you do not have to set exposure duration.)



### 5. Push S/R button to finish Long Time Exposure setting.

Long Time Exposure set indicator appears.

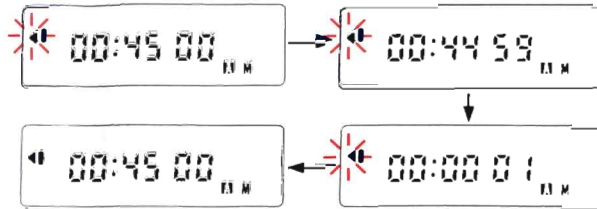


- Blinking 'bulb' is displayed for warning with any camera shutter speed setting other than 'bulb.'

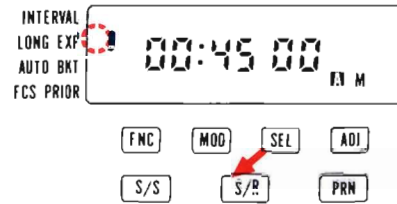


## 6. Start Long Time Exposure operation.

Push MF-21's S/S button or depress camera's shutter release button to start Long Time Exposure. The Long Time Exposure set indicator blinks throughout Long Time Exposure operation.

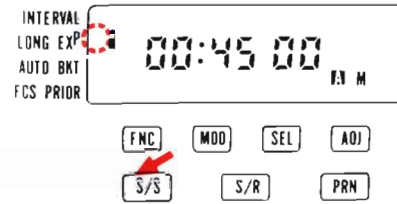


During operation, exposure duration display counts down second by second until it reaches 00:00 01, when shutter closes to complete the Long Time Exposure. Exposure duration display reverts to your previously set time and Long Time Exposure set indicator stops blinking.



## 7. Push S/R button to cancel Long Time Exposure set.

Long Time Exposure set indicator turns off.



## To stop exposure before preset time:

Push S/S button. Shutter closes and Long Time Exposure set indicator turns off. Exposure duration display reverts to your previously set time.

- With exposure duration set at 00.00 00, Long Time Exposure does not function.
- With camera body set for single servo autofocus, Long Time Exposure cannot be activated by pushing S/S button if focusing takes more than 10 seconds.
- If you start a Long Time Exposure by depressing camera's shutter release button but hold button longer than the duration you have set, the shutter remains open as long as you hold the button, regardless of your setting.
- Shifting camera shutter speed from 'bulb' to other setting cancels Long Time Exposure set.
- Setting exposure duration to 00.00 00 cancels Long Time Exposure set.

## AUTO EXPOSURE BRACKETING

At times when it is difficult to obtain a proper exposure (i.e., when shooting a sunset), use MF-21's Auto Exposure Bracketing function to shoot the same subject with several different exposures, for up to 19 frames.

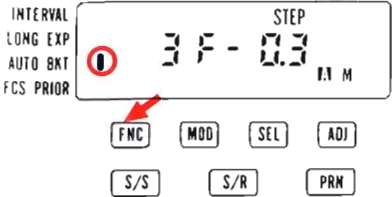


For number of frames to be shot, set at any odd number from 3 to 19; for exposure compensation degree, choose any setting from 0.3 to 2 (0.3, 0.5, 0.7, 1.0, 1.3, 1.5, 1.7, or 2.0). Depending on exposure compensation degree set, the number of frames available may be limited. See table below.

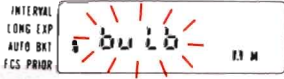
| Exposure compensation degree | Number of frames you can set |
|------------------------------|------------------------------|
| 0.3, 0.5, 0.7                | 3 to 19                      |
| 1.0                          | 3 to 17                      |
| 1.3                          | 3 to 13                      |
| 1.5                          | 3 to 11                      |
| 1.7, 2.0                     | 3 to 9                       |

Make sure not to set an exposure compensation incompatible with the number of frames you intend to shoot. Otherwise, number of frames will be automatically reset to 3.  
For practice, set MF-21 to take 7 shots with a shift in exposure of 0.5 degrees each time.

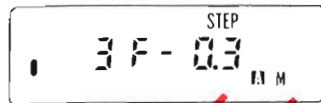
1. **Make sure display shows Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or shutter speed/aperture.**  
To imprint data during Auto Exposure Bracketing operation, select desired display, then push PRN button so Data Imprint function indicator appears. You cannot set or change imprint data while Auto Exposure Bracketing function is selected.



2. **Push FNC button so Auto Exposure Bracketing function indicator appears in the LCD.**  
Numerical indicator for number of frames (with F) and numerical indicator for exposure compensation (with STEP) also appear.

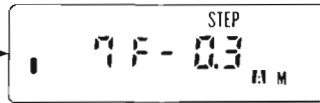


- With camera shutter speed set at 'bulb,' blinking 'bulb' warning appears in the LCD.



FNC MOD SEL ADJ

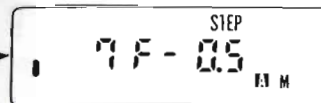
S/S S/R PRN



FNC MOD SEL ADJ

S/S S/R PRN

Push SEL button once to access exposure compensation, then push ADJ button until 0.5 appears.



FNC MOD SEL ADJ

S/S S/R PRN



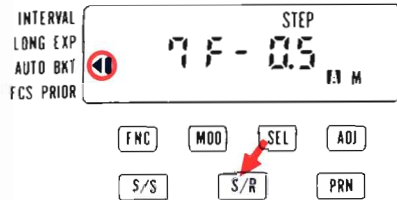
FNC MOD SEL ADJ

S/S S/R PRN

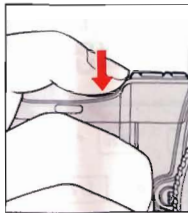
- To confirm imprinted data, push MOD button to change display. To change imprint data, push FNC button four times to select Data Imprint function. After adjusting, push FNC button four times to activate Auto Exposure Bracketing function again. (This time, you do not have to set number of frames and exposure compensation degree.)

### 3. Set desired number of frames.

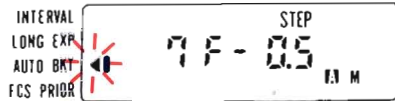
With SEL and ADJ buttons, set number of frames to 7 using same method described for setting date and time (pages 18 to 23).



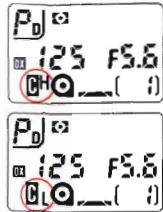
- 4. Push S/R button to complete Auto Exposure Bracketing setting.**  
Auto Exposure Bracketing set indicator will appear.



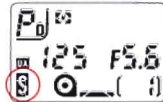
- 5. Depress F-801/N8008's or F-801s/N8008s's shutter release button to release shutter and start Auto Exposure Bracketing operation.**  
Auto Exposure Bracketing set indicator blinks throughout the operation.  
The operation progresses from underexposed to overexposed, with the correct exposure in the middle of operation (for 4th frame when number of frames is set at 7).



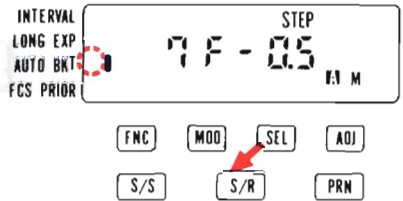
- With camera's film advance mode set at CH or CL and focus mode set at either manual or continuous servo autofocus:  
**With F-801s/N8008s**, depressing shutter release button and holding in triggers as many shots as the number of frames set. If you remove your finger from shutter release button before the set number of shots are taken, the operation stops; to take the remaining shots, depress and hold shutter release button again.  
**With F-801/N8008**, depressing shutter release button triggers as many shots as the number of frames set.  
**With both F-801s/N8008s and F-801/N8008**, when operation is complete, Auto Exposure Bracketing set indicator stops blinking.



- With camera's film advance mode set at CH or CL and focus mode set for single servo autofocus:  
Depressing shutter release button and holding in triggers as many shots as the number of frames set. If you remove your finger from shutter release button before the set number of shots are taken, the operation stops; to take the remaining shots, depress and hold shutter release button again.  
When operation is complete, Auto Exposure Bracketing set indicator stops blinking.



**With camera's film advance selector set at S:**  
 Camera will take as many shots as set—one shot each time you depress shutter release button. When Auto Exposure Bracketing is complete, Auto Exposure Bracketing set indicator stops blinking.



**6. Push S/R button to cancel Auto Exposure Bracketing set.**  
 Auto Exposure Bracketing set indicator turns off.

- Pushing S/S button during Auto Exposure Bracketing turns off Auto Exposure Bracketing set indicator.
- With camera's shutter speed at 'bulb,' you cannot use Auto Exposure Bracketing. Setting to 'bulb' cancels Auto Exposure Bracketing settings.
- With camera's exposure mode at M for manual, exposure will not be compensated, although you will still be able to take as many shots as the number of frames set.
- In TTL auto flash photography, exposure shifts within the amount of light available from flash output.
- In single servo autofocus, shots will not be taken as long as subject is out of focus.

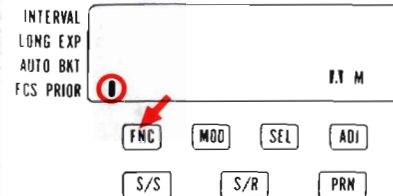
## -FREEZE FOCUS (FOCUS PRIORITY) FUNCTION

The MF-21's Freeze Focus function automatically released the shutter when the subject is in a present focus position in manual focus mode

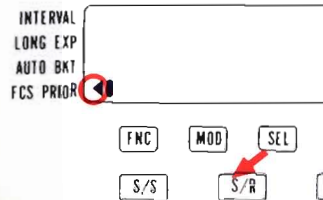


1. Make sure display shows Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Frame Count, Sequence Number, Fixed Number or shutter speed/aperture.

To imprint data during Freeze Focus operation, select desired display and push PRN button so Data Imprint function indicator appears.



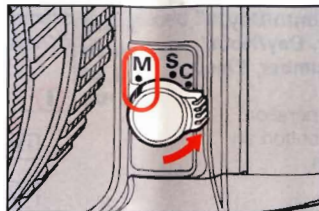
2. Push FNC button so Focus Priority indicator appears in LCD.



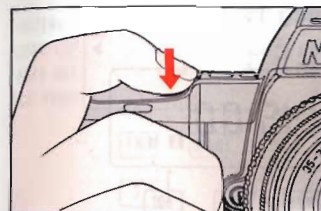
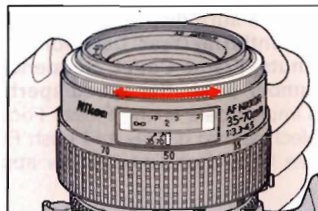
### 3. Push S/R button to set Focus Priority function.

Focus Priority set indicator appears.

- You can change or set imprint data after setting Focus Priority function. Push FNC button once so Data Imprint function is selected, then change and/or set data as desired. The Focus Priority set indicator remains on.



### 4. Making sure to set the focus mode selector to M (and set the lens A-M switch/ring to M if provided), rotate the lens focus ring to desired distance setting.



### 5. Depress shutter release button and hold it down to trigger Freeze Focus function.

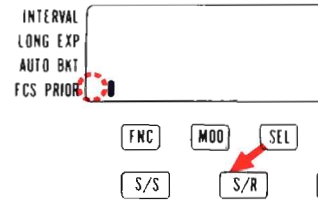
**With camera's film advance mode selector at CH or CL:**

Shutter is released when subject comes in a preset focus position. As long as you keep shutter release button depressed, shutter will be released, unless subject is outside the focus bracket.

To stop Freeze Focus shooting, remove your finger from the shutter release button.

**With camera's film advance mode selector at S:**

Shutter is released when subject comes in a preset focus position. Remove your finger from the shutter release button and depress again for the next shot. Shutter will be released each time you depress the shutter release button as long as the subject stays on the preset focus position.



### 6. Push S/R button to cancel focus priority set.

Focus Priority set indicator turns off.

- With a object located at the same distance as your desired distance, you can perform autofocus to set lens focus ring. After autofocus, never forget to set the camera's focus mode selector to M.

# COMBINING MF-21'S FUNCTIONS

Certain MF-21 functions—Interval Timer, Long Time Exposure, Auto Exposure Bracketing and Freeze Focus (Focus Priority) function—can be combined. The following combinations are possible:

Interval Timer + Long Time Exposure

Interval Timer + Long Time Exposure

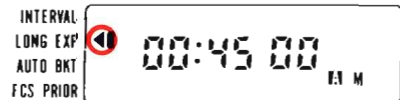
Interval Timer + Auto Exposure Bracketing

Interval Timer + Freeze Focus (Focus Priority) function

Long Time Exposure + Freeze Focus (Focus Priority) function

Interval Timer + Long Time Exposure + Freeze Focus (Focus Priority) function

## Interval Timer/Long Time Exposure Combination



FNC MOD SEL ADJ

S/S S/R PRN

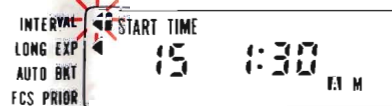
1. Set Long Time Exposure function as desired.



FNC MOD SEL ADJ

S/S S/R PRN

2. Set Interval Timer.



FNC MOD SEL ADJ

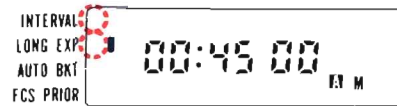
S/S S/R PRN

3. Push S/S button.

Long Time Exposures can be set for as many frames as you desire, with as many intervals as you choose to set.

Interval Timer set indicator blinks throughout operation; Long Time Exposure set indicator blinks each time shutter opens.

After all exposures are complete, operation automatically stops and both Interval Timer set indicator and Long Time Exposure set indicator stop blinking.

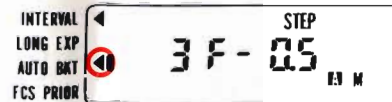
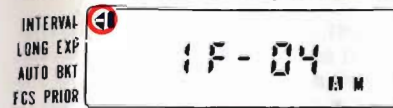


#### 4. Push S/R button to cancel the settings.

With Long Time Exposure function display, pushing S/R button to cancel the Long Time Exposure set also cancels Interval Timer set.

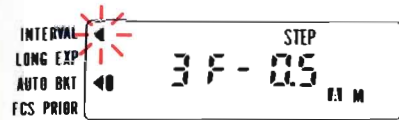
- To stop the operation before all exposures have been taken, push S/S button.
- Depressing the shutter release button during intervals triggers a Long Time Exposure at the duration that is set.

#### Interval Timer/Auto Exposure Bracketing Combination



#### 1. Set Interval Timer and Auto Exposure Bracketing as desired.

Do not set number of frames for Interval Timer setting; it is automatically canceled when you set number of frames for Auto Exposure Bracketing.

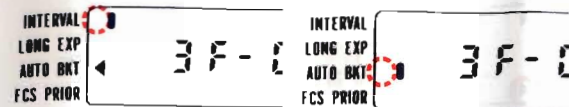


## 2. Push S/S button to trigger the operation.

Auto Exposure Bracketing shootings are performed as often as set, with the intervals you set.

Interval Timer set indicator blinks throughout the operation; Auto Exposure Bracketing set indicator blinks throughout shooting.

After all shootings are complete, operation stops automatically and both Interval Timer set indicator and Auto Exposure Bracketing set indicator stop blinking.

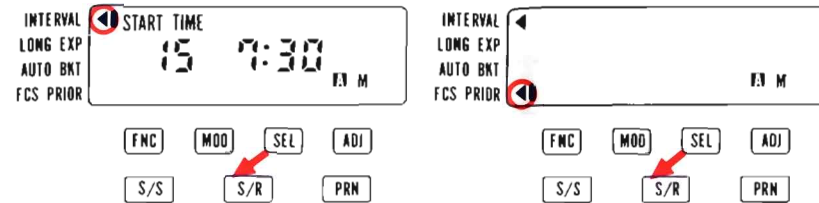


## 3. Cancel the settings.

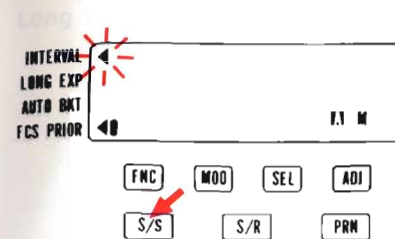
With Interval Timer display, push S/R button to cancel Interval Timer set; to cancel Auto Exposure Bracketing set, push S/R button when Auto Exposure Bracketing display is showing.

- To stop the operation before all exposures have been taken, push S/S button
- Depressing shutter release button during intervals performs Auto Exposure Bracketing shooting according to your setting.

## Interval Timer/Freeze Focus (Focus Priority) Combination

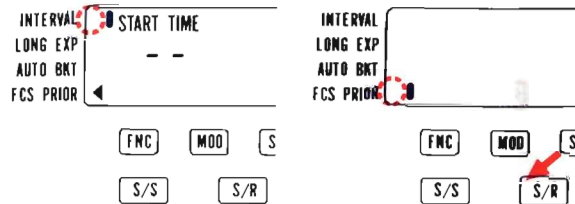


**1.** Set Interval Timer and Focus Priority as desired.



**2.** Push S/S button to start the operation.

Freeze Focus shootings are performed as often as you set with the intervals you set.  
Interval Timer set indicator blinks throughout the operation.  
After all shootings are complete, the operation stops automatically and Interval Timer set indicator stops blinking.

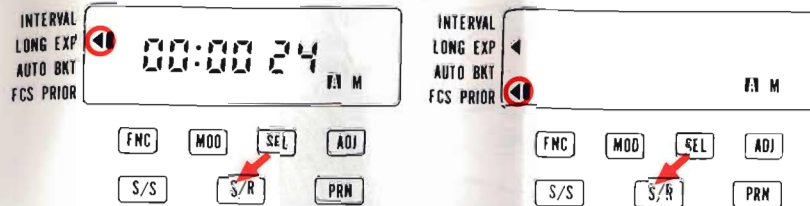


### 3. Cancel the settings.

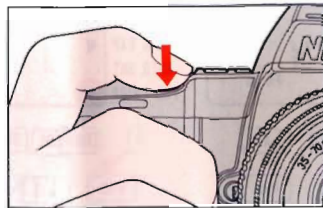
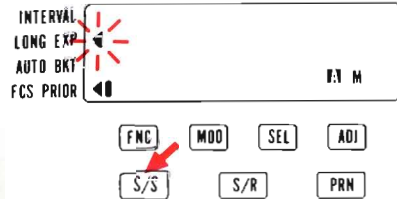
With Interval Timer display, push S/R button to cancel the Interval Timer set; to cancel Focus Priority set, push the S/R button when the Focus Priority display is showing.

- To stop the operation before all exposures have been taken, push S/S button.
- Depressing shutter release button during intervals triggers Freeze Focus shooting according to your setting.
- If subject does not enter preset focus position within approx. 10 seconds, MF-21 omits that shooting and continues as usual from next shooting time.

### Long Time Exposure/Freeze Focus (Focus Priority) Combination



### 1. Set Long Time Exposure and Focus Priority as desired.



## 2. Start the operation.

Start the operation by pushing MF-21's S/S button or by depressing the camera's shutter release button.

### With MF-21's S/S button depressed:

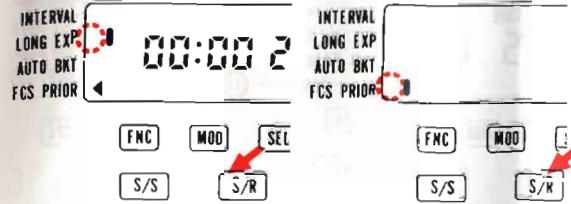
Long Time Exposure set indicator starts blinking. If subject enters the preset focus position within 10 seconds, shutter opens for Long Time Exposure. If subject does not enter focus position for 10 seconds or longer, Long Time Exposure is canceled.

After Long Time Exposure is complete, the Long Time Exposure set indicator stops blinking.

### With camera's shutter release button depressed:

When subject enters the preset focus position, shutter opens for Long Time Exposure and Long Time Exposure set indicator starts blinking. When shooting is complete, Long Time Exposure set indicator stops blinking.

Note that shutter remains open for as long as you hold the shutter release button.



## 3. Cancel the settings.

With Long Time Exposure display showing, push S/R button to cancel Long Time Exposure set; to cancel Focus Priority set, push S/R button with Focus Priority display.

- Pushing S/S button while Long Time Exposure set indicator is blinking cancels the Long Time Exposure shooting you have set.

## Interval Timer/Long Time Exposure/Freeze Focus (Focus Priority) Combination

INTERVAL  
LONG EXP  
AUTO BKT  
FCS PRIOR

00:00 24

FNC MOD SEL

S/S S/R [

INTERVAL  
LONG EXP  
AUTO BKT  
FCS PRIOR

START TIME  
15 13:30

FNC MOD SEL

S/S S/R [

INTERVAL  
LONG EXP  
AUTO BKT  
FCS PRIOR

00:00 24

FNC MOD SEL

S/S S/R [

### 1. Set Long Time Exposure, Interval Timer and Focus Priority as desired.

Make sure to set Long Time Exposure before Interval Timer set.

The three following indicators will appear: Long Time Exposure set indicator, Interval Timer set indicator and Focus Priority set indicator.

INTERVAL  
LONG EXP  
AUTO BKT  
FCS PRIOR

00:00 24

FNC MOD SEL ADJ

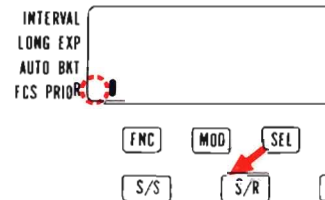
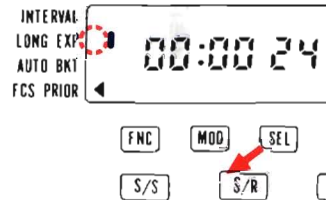
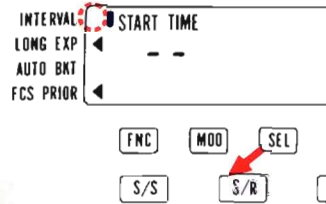
S/S S/R PRN

### 2. Push S/S button.

Long Time Exposures can be performed in freeze focus function with any number of shootings at set intervals, for any number of frames you set.

Interval Timer set indicator blinks throughout the operation; Long Time Exposure set indicator blinks each time shutter opens.

After all exposures are complete, the operation stops automatically, and both Interval Timer set indicator and Long Time Exposure set indicator stop blinking.



### 3. Cancel the settings.

Make sure you cancel the Interval Timer setting before cancelling Long Time Exposure setting.

- To stop the operation before all exposures have been taken, push S/S button.
- Depressing shutter release button during intervals triggers a Long Time Exposure as set, if subject is in focus.
- If subject does not enter preset focus position within approx. 10 seconds, camera omits that shooting and continues as usual from next shooting time.

## LIQUID CRYSTAL DISPLAY (LCD)

1. Avoid using the MF-21 at high temperatures (60°C/140°F or above); the entire display turns black, making it hard to read display information.
2. Avoid storing the MF-21 in an excessively hot place, such as the trunk of a car parked in the sun. It could shorten the LCD's life.
3. When the temperature drops below freezing, the LCD's response time slows, and improper imprint may occur. When the temperature rises, the display works normally.
4. The MF-21's LCD is of the highest quality. After seven to ten years of normal use, however, contrast may deteriorate and display information may begin to fade. Should this occur, contact an authorized Nikon dealer or service facility to have the display replaced at a nominal charge.

## CHANGING BATTERIES

If the MF-21's LCD begins to blink, the batteries must be replaced with a fresh set. After replacing the battery, reset data. At temperatures of  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ) or colder, the LCD may blink even with new batteries, due to insufficient battery strength. If this happens, push PRN button to stop LCD blinking. When temperature rises, the batteries return to normal capacity.

1. Do not use any type of battery other than the 3V CR-2025-type lithium battery
2. Do not install batteries in strong sunlight or bright illumination.
3. Do not dispose of batteries by burning, or disassemble batteries when disposing of them.
4. Keep batteries away from infants and small children. If battery is accidentally swallowed, call doctor immediately; the material inside batteries can cause serious injury.

## TIPS ON MF-21 CARE

1. Do not shock the MF-21 or apply any sort of pressure to the LCD panel.
2. Do not use cleaning fluids to clean the MF-21.

## ACCESSORIES

### Camera Case Base Portion CF-39D

Use CF-39D in place of the standard lower part of the camera case when the MF-21 (or MF-20) is attached to the Nikon F-801/N8008 or F-801s/N8008s.

# SPECIFICATIONS

|                                    |                                                                                                                                                                                                                                                              |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usable camera</b>               | Nikon F-801/N8008, F-801s/N8008s                                                                                                                                                                                                                             |
| <b>Attachment method</b>           | Hinges to camera in place of standard camera back                                                                                                                                                                                                            |
| <b>Usable film speed</b>           | ISO 25 ~ 3200                                                                                                                                                                                                                                                |
| <b>Imprint exposure adjustment</b> | 4 steps provided; automatically adjusted according to film speed in use; manual adjustment also available                                                                                                                                                    |
| <b>Data imprint type</b>           | 7-segment, 6-digit LCD with light from a built-in lamp                                                                                                                                                                                                       |
| <b>Imprinted data</b>              | Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, frame count number same as that shown on main camera LCD; sequence number, fixed number, and shutter speed/aperture; date and time are automatically programmed and adjusted for leap years |
| <b>Imprint area</b>                | Lower right-hand corner of picture frame; 0.7mm (height) x 4.0 mm (width) when all 6 figures appear                                                                                                                                                          |

|                                               |                                                                                                                                                                   |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data imprint option</b>                    | By pushing PRN button                                                                                                                                             |
| <b>Interval Timer function</b>                | Intervals can be set for up to 99 hours 59 minutes and 59 seconds; up to 99 shots can be taken between intervals, up to 99 times                                  |
| <b>Long Time Exposure function</b>            | Exposure duration available from 1 second to 99 hours 59 minute 59 seconds, with camera's shutter speed set at 'bulb' (may depend on life of main camera battery) |
| <b>Freeze Focus (Focus Priority) function</b> | Controls camera's shutter release with focus signals from camera (with camera's focus mode set at M position)                                                     |
| <b>Auto Exposure Bracketing</b>               | Up to 19 frames can be taken for the same subject using a variety of exposures (with compensation degree from 1/3 to 2 steps between each frame)                  |
| <b>Speedlight charge control</b>              | Turn on speedlight (having standby switch) one minute be-                                                                                                         |

|                            |                                                                                                                                       |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data adjustment</b>     | fore shutter release during Interval Timer operation                                                                                  |
| <b>Data imprint signal</b> | By pushing FNC, MOD, SEL and ADJ buttons                                                                                              |
| <b>Data display</b>        | Transferred by camera body contacts                                                                                                   |
| <b>Power source</b>        | By 7-segment, 6-digit LCD                                                                                                             |
| <b>Battery life</b>        | Two 3V lithium (CR-2025 type) batteries                                                                                               |
| <b>Timing accuracy</b>     | Approx. one year* at 20°C (68°F); built-in 24-hour-type clock starts from 00:00:00, January 1, 1988, whenever batteries are installed |
| <b>Temperature</b>         | * May vary depending on extent of data imprint use, film speed in use and functions.                                                  |
| <b>Dimensions (WXHxD)</b>  | Within $\pm 30$ seconds a month (20°C/68°F)                                                                                           |
|                            | - 10°C (14°F) ~ +40°C (104°F) for usage; - 20°C (4°F) ~ +60°C (140°F) for storage                                                     |
|                            | Approx. 139.7 x 60.8 x 29.0 mm (5.5 x 2.4 x 1.1 in.)                                                                                  |

|                                                                 |                        |
|-----------------------------------------------------------------|------------------------|
| <b>Weight (without batteries)</b>                               | Approx. 90 g (3.2 oz.) |
| Specifications and design are subject to change without notice. |                        |

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